

Weiss GmbH

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Claims

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1. A rotary indexing table comprising a stationary base unit (16) and a plate (10) rotatably supported thereon and drivable relative to the base unit (16) by means of a drive, characterized in that the drive is formed by a plurality of individual drive elements (1, 2) arranged in the circumferential region of the plate (10).
- 10 2. A rotary indexing table in accordance with claim 1, characterized in that the individual drive elements (1, 2) are uniformly distributed at least over part of the circumference of the plate (10).
- 15 3. A rotary indexing table in accordance with claim 1, characterized in that the individual drive elements (1, 2) each lie substantially diametrically opposite one another with respect to the axis of rotation of the plate (10).
- 20 4. A rotary indexing table in accordance with claim 1, characterized in that the plate (10) is provided along its total circumference with individual permanent magnets (2) adjacent to one another.
- 25 5. A rotary indexing table in accordance with claim 4, characterized in that the base unit (16) has a plurality of electromagnets (1) which lie opposite the permanent magnets (2) coupled to the plate (10).

6. A rotary indexing table in accordance with claim 1, characterized in that the individual drive elements (1, 2) are acted on by an air cooling system (13, 13').
- 5 7. A rotary indexing table in accordance with claim 6, characterized in that a respective air cooling element (13, 13') is provided for each half of the individual drive elements (1, 2) arranged in the circumferential region of the plate (10).
- 10 8. A rotary indexing table in accordance with claim 7, characterized in that the two air cooling elements (13, 13') arranged adjacent to one another and at least one exhaust air aperture (14) are arranged substantially diametrically opposite one another with respect to the axis of rotation of the plate (10).
- 15 9. A rotary indexing table in accordance with claim 1, characterized in that an encoder (3, 4) is provided for the determination of the relative position between the plate (10) and the base unit (16).
- 20 10. A rotary indexing table in accordance with claim 9 characterized in that the plate (10) is provided with code markings (4) distributed over its circumference, in particular including at least one reference mark.
- 25 11. A rotary indexing table in accordance with claim 9, characterized in that the base unit (16) is provided with an optical, a magnetic or an inductive sensor (3) for the detection of the code markings (4).

12. A rotary indexing table in accordance with claim 1, characterized in that the base unit (16) has a brake unit (5) cooperating with the plate (10) and in particular loaded by compressed air.

5 13. A rotary indexing table in accordance with claim 12, characterized in that the brake unit (5) is in its state permitting a rotation of the plate (10) when the compressed air load is present.

10 14. A rotary indexing table in accordance with claim 1, characterized in that the plate (10) and the base unit (16) are each made in ring shape, with the central openings of the plate (10) and of the base unit (16) being substantially aligned with one another.

15. A rotary indexing table in accordance with claim 1, characterized in that the plate (10) is rotatably supported on the base unit (16) via a wire four-point bearing (8).